

1-27-2017

## Current Efforts to Make Bike Share More Equitable: A Survey of System Owners and Operators

Steven Howland  
*Portland State University*

Let us know how access to this document benefits you.

Follow this and additional works at: [http://pdxscholar.library.pdx.edu/trec\\_seminar](http://pdxscholar.library.pdx.edu/trec_seminar)

 Part of the [Social Policy Commons](#), [Transportation Commons](#), and the [Transportation Engineering Commons](#)

---

### Recommended Citation

Howland, Steven, "Current Efforts to Make Bike Share More Equitable: A Survey of System Owners and Operators" (2017). *TREC Friday Seminar Series*. 107.  
[http://pdxscholar.library.pdx.edu/trec\\_seminar/107](http://pdxscholar.library.pdx.edu/trec_seminar/107)

This Book is brought to you for free and open access. It has been accepted for inclusion in TREC Friday Seminar Series by an authorized administrator of PDXScholar. For more information, please contact [pdxscholar@pdx.edu](mailto:pdxscholar@pdx.edu).



Photo by Nathan McNeil

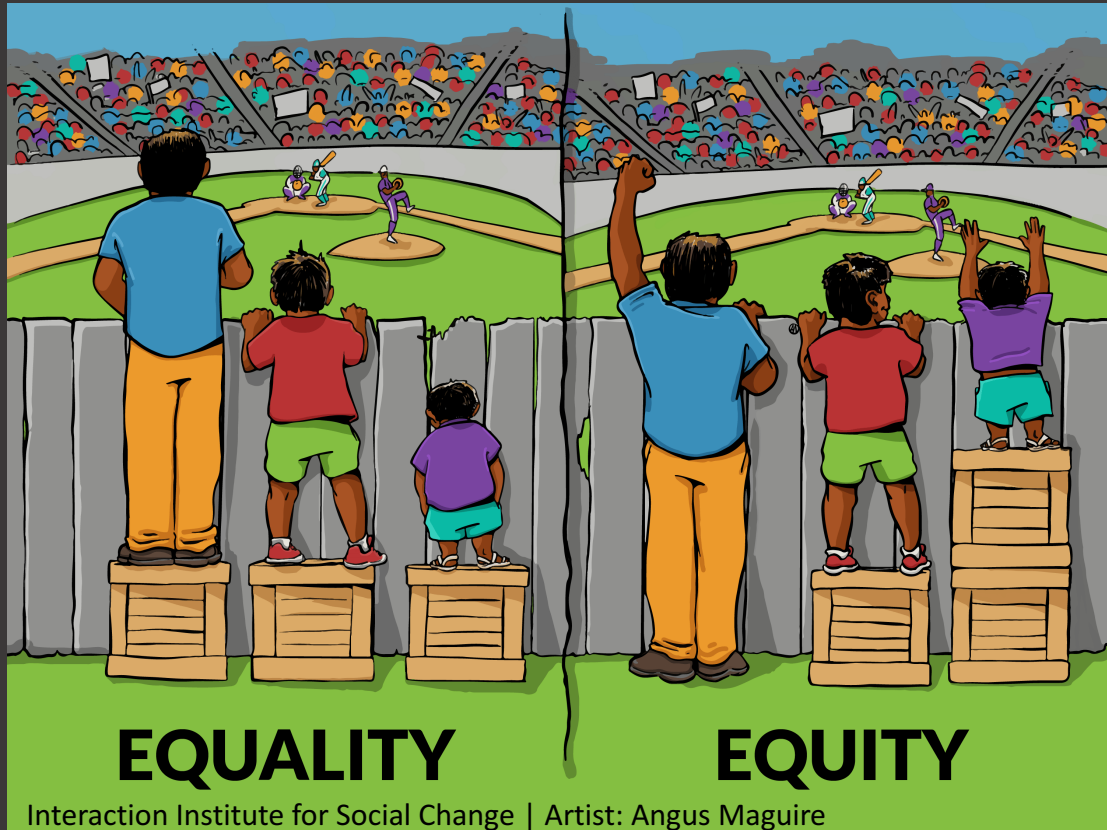
# Current Efforts to Make Bike Share More Equitable

## A Survey of System Owners and Operators

Steven Howland  
Nathan McNeil  
Joseph Broach, PhD  
Kenneth Rankins  
John MacArthur, PhD  
Jennifer Dill, PhD

Portland State University

# Equity



## What is it?

- Recognizing that some groups have a disadvantage compared to others
- Efforts to correct disadvantage need to take into account level of disadvantage



# Equity

## EQUALITY VERSUS EQUITY



In the first image, it is assumed that everyone will benefit from the same supports. They are being treated equally.

[Culturalorganizing.org](http://Culturalorganizing.org)



In the second image, individuals are given different supports to make it possible for them to have equal access to the game. They are being treated equitably.



In the third image, all three can see the game without any supports or accommodations because the cause of the inequity was addressed. The systemic barrier has been removed.

## How did we apply it?

- League of American Bicyclists:
  - “the guarantee of fair treatment, access, opportunity, and advancement for all, while at the same time striving to identify and eliminate barriers that have prevented the full participation of some group”
- Advocacy Advance:
  - “recognizing and reacting to the under-representation of youth, women, and people of color in advocacy efforts and local transportation decisions.”
- Additional:
  - Low-income
  - Older Adults
  - Recognize ramifications of past and ongoing inequity
- Equity in terms of not just focusing on raising disadvantaged groups above barriers, but removing barriers all together

# Methods

## Identify Bike Share Organizations

- Pedestrian and Bicycling Information Center
- Web searches
- National Association of City Transportation Officials
- Developed a list of 75 bike share systems and persons for contact
  - Excluded systems with fewer than 40 bikes
- Emailed contact persons March 2016
  - 3 reminders sent

## Survey

- Structure
  - Typology of systems (# bikes, owner/operator, public/private, system operational)
  - Equity statement (yes/no)
    - If yes, provide the statement
  - Metrics to measure
  - Role of Equity in:
    - Station siting
    - Fee structure and payment systems
    - System operations
    - Promotion, outreach, and marketing
    - Data Collection
  - Perceived barriers for users
  - Barriers for the organization

# Analysis

# ANOVA

- Comparing Role of Equity with size and type of system

# Content Analysis

- Equity statements and open ended responses
  - Over 200 codes were identified across all pieces of the survey
    - Combined codes were used for final analysis

[illegible]

# Respondents

## ***Responding Organization and Bike Share System Characteristics (n=55)***

Responding Organization Role in Bike Share System	
	Percent of Responding Organizations
Owner	33%
Operator	24%
Owner and Operator	29%
Partner - Not owner or operator	14%

Responding Organization Type	
	Percent of Responding Organizations
Government	44%
Non-profit organization	40%
Private Operator	11%
University	6%
<u>Launch Status</u>	
Operational	82%
Pre-launch	18%

## **Number of Bikes in System**

	Percent of Responding Organizations
Up to 100 bikes (small)	26%
101 to 500 bikes (medium)	51%
501 or more bikes (large)	24%

## **U.S. Census Region**

	Percent of Responding Organizations
Northeast	13%
South	24%
Midwest	29%
West	35%

# Equity Statements

13 systems stated they had an equity statement

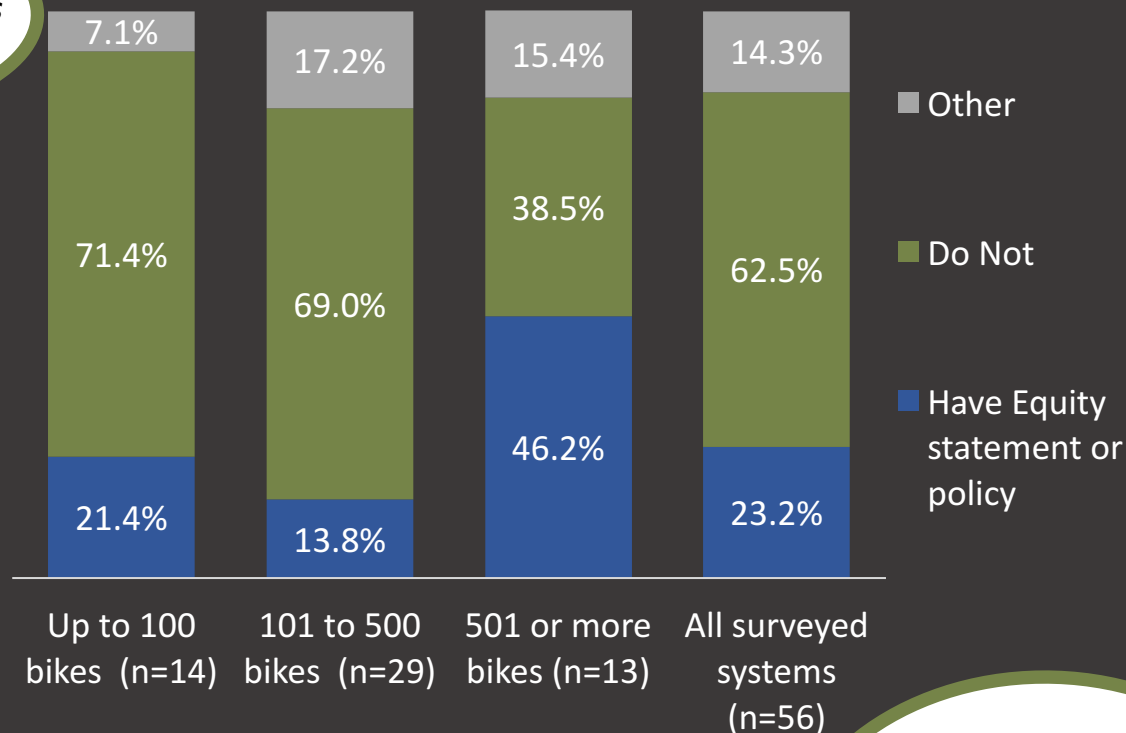
- ↳ More likely to be large systems
- ↳ More likely to be in more diverse cities (Median %non-white +21 percentage points)
- ↳ Tended to consider equity in more decisions

Only 3 systems provided what we considered extensive statements, incorporating...

- ↳ Who they were targeting
- ↳ How they were targeting them
- ↳ Specific goals they hoped to achieve

*providing accessible and affordable bicycles for all*

Which systems have equity statements?



*...equity was not a major consideration in the initial roll out of our bike-share system, it has become increasingly important as the system grows and additional stakeholders become involved.*

*Establish a system that engages and serves users in minority, low income, and limited transit option communities and help improve access to jobs, recreation and healthy nutrition*



# Equity Statements

## NO Equity Statement

33 systems stated they did not have an equity statements

- ↳ Typically smaller systems
- ↳ Cities tended to be less racially diverse (Median %non-white -21 percentage points)
- ↳ Many stated they had equity statements in development

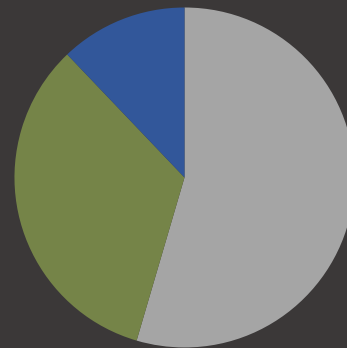
Lack of an equity statement may be due in part due to less political pressure and fewer resources in these smaller, less diverse cities.

## “Other” Responses

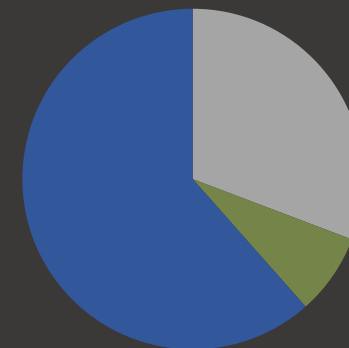
7 systems responded “other” to whether they had an equity statement. Almost all had statement or policy under development

## ***Equity Statement Presence and Incorporation of Equity in Bike Share***

**Without Equity Statement**



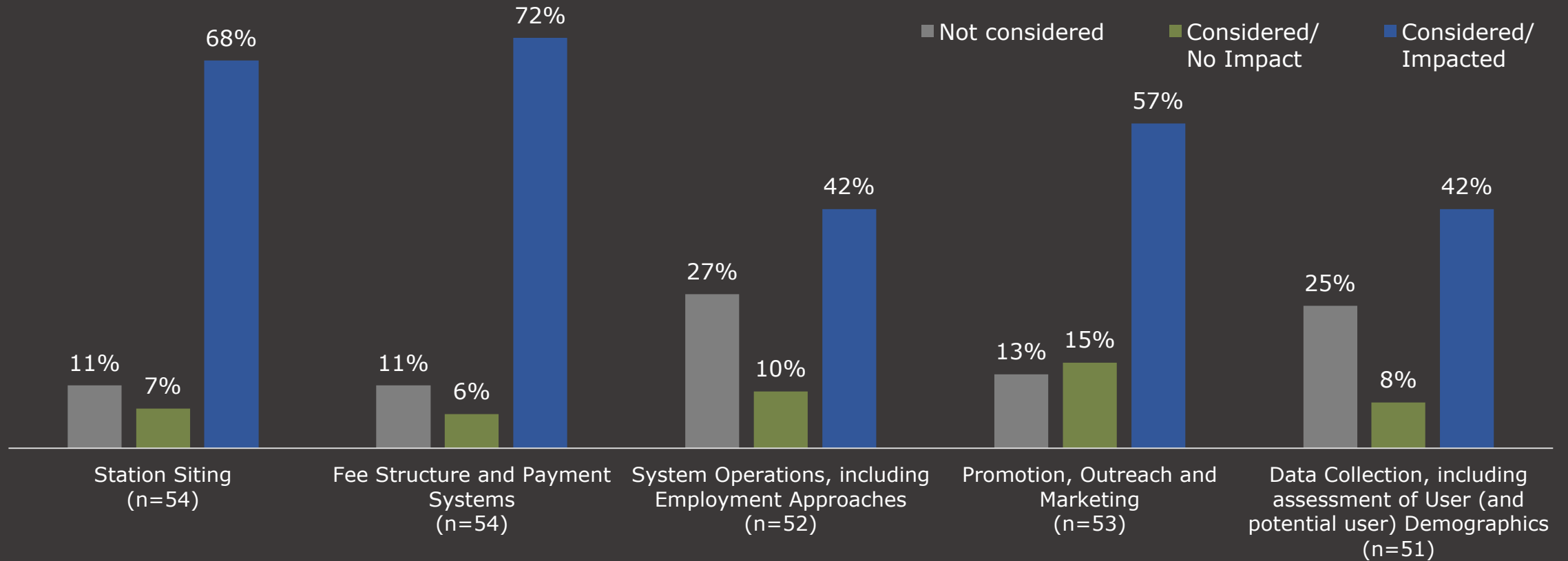
**With Equity Statement**



- 0 Elements
- 1-2 Elements
- 3-5 Elements

Note: Number of key areas where equity had "considerable" or "primary" role. Those responding "Other" to whether they had an equity statement were excluded.

# Equity in Bike Share Elements



Note: Percentages do not total 100% due to "Don't Know/NA" responses. Possible survey responses were: Not considered; considered, no impact; considered, minor role; considered, considerable role; considerations primary driver. We combined minor role, considerable role, and primary driver into the Considered/impacted category here.

# Equity in Station Siting

Promote transit connectivity  
Connection to destinations

- Jobs
- Commercial/retail districts
- Recreation

Station placement at public housing complexes

Large coverage areas

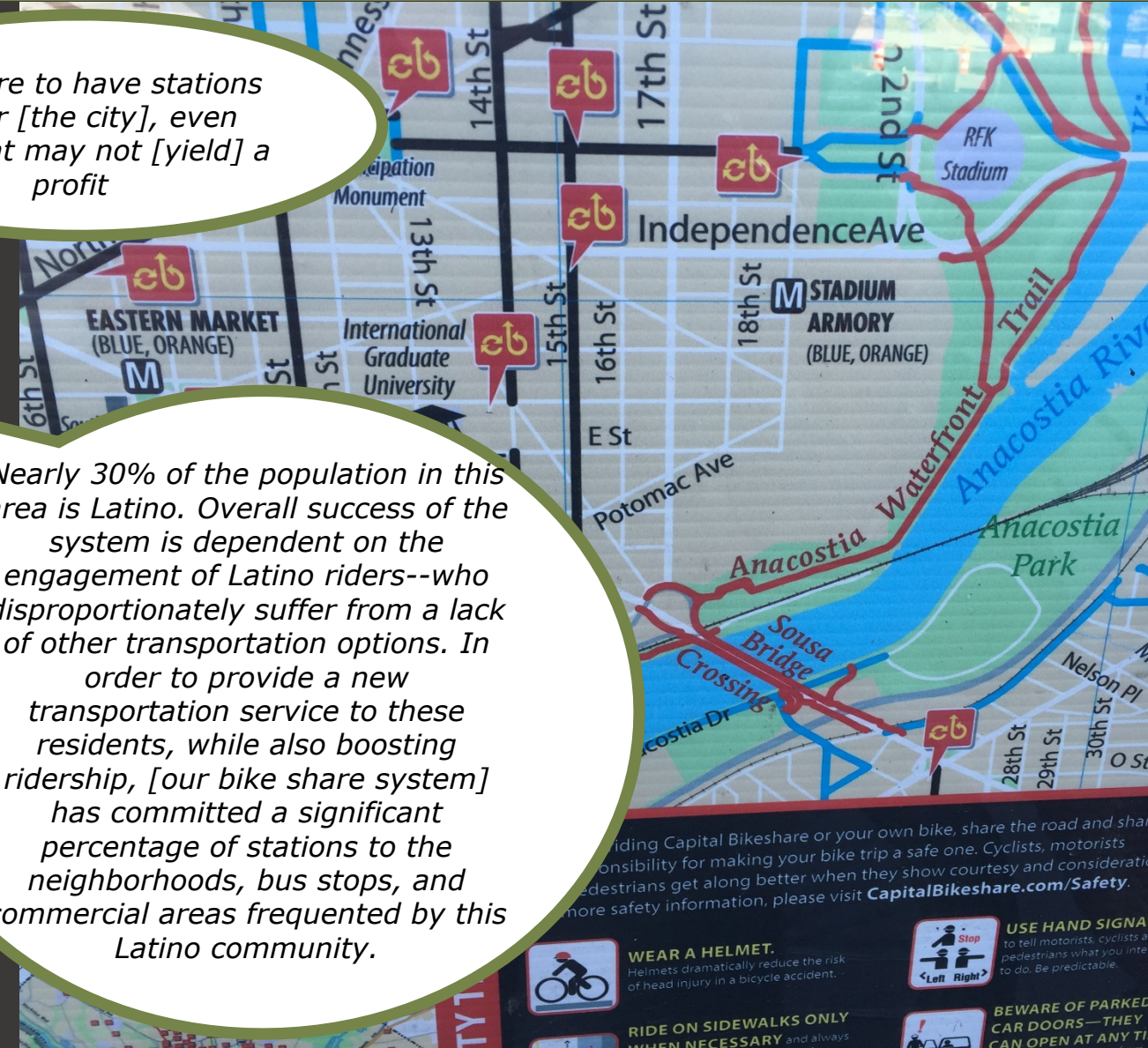
Walkable distances between stations

Very few had quotas for number or percentage of stations in low-income and minority neighborhoods.

*As we site stations, we are examining locations that are proximate to transit stops, high-density housing, which is typically low-income in this area, jobs, and key destinations. While not targeting specific populations, we also conducted an online survey where participants were asked to pick their top 5 station locations.*

*Made sure to have stations all over [the city], even those that may not [yield] a profit*

*Nearly 30% of the population in this area is Latino. Overall success of the system is dependent on the engagement of Latino riders--who disproportionately suffer from a lack of other transportation options. In order to provide a new transportation service to these residents, while also boosting ridership, [our bike share system] has committed a significant percentage of stations to the neighborhoods, bus stops, and commercial areas frequented by this Latino community.*



# Equity in Fee Structure/Payments

## Cost

Reevaluated pricing and dropped prices accordingly

Reduced or eliminated bank holds

Added membership options

- ↳ Employer discounts
- ↳ Monthly and weekly passes
- ↳ Pay-per-ride structures
- ↳ Changed yearly membership to be able to be paid monthly

Simplify fee structure to make it easier to understand

Use of contract bid process to solicit "innovative fee structures"

## Discounts

14 systems said they had discounted or free memberships

One system obtained a grant to give their target equity population a zero cost program

Qualifications:

- ↳ Receiving public assistance
- ↳ Income thresholds

Discounts ranged considerably

Tied to low income populations and typically not race/ethnicity specific.

## Payment Systems

13 systems said they were trying to meet the needs of unbanked populations

Cash payment options

- ↳ Use of commercial establishments to facilitate transactions
- ↳ One was using its library system

Allowing for use of pre-paid debit/credit cards

One also looking at ways to incorporate homeless populations

*We took information from our focus group, conducted in advance of launch, with low income [populations] into account and priced with this in mind.*

*Adding membership and payment options: monthly installments for annual members, smaller "hold" charges on credit/debit cards, non-web-based payment interfaces, and exploring how to accept cash payment and/or combined bike share/transit passes.*

# Equity in System Operations

## **Hiring Processes**

Typically looked at hiring locally and paying living wage

Five systems said they partnered with local workforce development organizations or public housing to find potential hires

Some hired persons matching the demographic they were trying to reach with their equity programs as advocacy staff

## **Operations**

Some stated their ability to incorporate equity in this element was restricted by how their operations were organized



# Equity in Promotion/Marketing/Outreach

Spanish translation of marketing materials was the most common method

Incorporated people of color (specifically their target demographics) in advertising material

Forming partnerships with organizations active in their target neighborhoods to help with outreach

Utilizing community events to further exposure to the system

*[W]e would do significant personal outreach to people who lived in low income housing near stations to educate them about all aspects of bike share, including pricing and including signing them up onsite since most do not have reliable internet access.*

*[P]roviding outreach materials in a variety of languages, identifying community stakeholders that can reach specific populations, etc.*



# Equity in Equity Metrics/Data Collection

Only a few specified equity metrics tied to specific equity goals

- ↳ Quota percentage of stations near targeted equity populations
- ↳ Track usage by low-income pass users to develop better understanding of their patterns: goal to reach specific number of trips per user
- ↳ Monitor overages: goal to limit overage to certain \$/month
- ↳ Set goal of % of women members
- ↳ Set goal of % of low-income users, w/ associated gender goal among low-income users

## Data Collection

- ↳ Lack of clarity in which members they wanted to survey in most cases
- ↳ 5 systems aimed to use the data collected to measure progress toward equity goals

# Barriers

Over 80% of respondents (44 systems) shared what they thought were key barriers to participation for targeted equity populations in their cities. Generally, the barriers fell into the categories of **pricing and payment systems; various aspects of access; perceptions of bike share and bicycling in general; and awareness, education, and understanding of how the system works.**



50% cited price and payment related barriers, including:

## Barrier

## Potential Solutions



Cost to use the system

Reduced price options



Lack of credit or debit card

Cash payment options



Internet or smart phone access

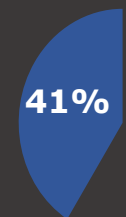
Public internet and kiosks



43% cited infrastructure related barriers, including:

## Barrier

## Potential Solutions



Lack of stations in underserved areas

New stations



Lack of safe bike networks in underserved areas

Build out low stress networks



32% cited lack of knowledge about the system, including:

## Barrier

## Potential Solutions



Complicated rental structure

Simplify time restrictions;  
Consistent fares



Language barriers

Materials in key languages



25% cited negative perceptions about bicycling or bike share

*We've struggled to get people on bikes in some communities. It's been less about cost, credit cards etc. and more an issue of cultural attitudes about biking.*

*Our largest barrier is station locations. As housing prices have gone up, more and more low income residents are being pushed further from the city core to find affordable housing. These pockets of affordability are too far from our current system to reasonably place stations in the foreseeable future.*

\*Note: Responses were open-ended and coded into categories. Some respondents provided more than one barrier, and totals are more than 100%

# Conclusions

Equity is something most bike share systems are thinking about if not incorporating

Equity statements are important to incorporating equity throughout the system.

Equity statements should be specific

- Who are you wanting to target?
- How are you planning to target them?
- How are you going to track your progress?

The biggest barriers cited by bike share organizations are being worked on through equity strategies

- 68% are incorporating it in station siting
- 72% are incorporating it in fee structure and pricing
- 57% are incorporating it in promotion, marketing, and outreach

Equity is a fairly new concept in most bike share organizations. As such, best practices on what works and what does not is yet to be known.

# Questions?

Steven Howland

Email: [showland@pdx.edu](mailto:showland@pdx.edu)

Twitter: [@showland886](https://twitter.com/showland886)

